

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A computer-readable storage medium storing a program for a video game, which draws an object in a virtual space,
wherein said program is structured so as to make a computer perform:
receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;
determining a first position of said object and a second position of said dummy object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from a view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the view point and wherein the drawing of said dummy object is in a second lightness different from a first lightness of said object, said second lightness being based on said first lightness.

2. (Previously Presented) The computer-readable storage medium according to Claim 1, wherein the first position of said object and the second position of said dummy object are determined so that when observed from the view point there is deviation between a straight line connecting a predetermined reference position of said object and the view point and a straight line connecting the view point and a position in said dummy object corresponding to the predetermined reference position of said object.

3. (Previously Presented) The computer-readable storage medium according to Claim 1, wherein in said drawing, said dummy object is drawn before said object is drawn.

4. (Previously Presented) The computer-readable storage medium according to Claim 1, wherein in said drawing, a hidden surface removal treatment using a Z buffer is carried out to draw said object at said first position and draw said dummy object at said second position and in the lightness different from that of said object.
5. (Previously Presented) The computer-readable storage medium according to Claim 1, wherein in said drawing, the second lightness is higher than the first lightness.
6. (Previously Presented) A computer-readable storage medium storing a program for a video game, which draws an object comprised of a plurality of polygons, wherein said program is structured so as to make a computer perform:
receiving object data representing an object at a particular instance of a virtual time-space continuum;
generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;
setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and
drawing, in a digital video frame representing said instance of said virtual time-space continuum, each polygon forming said object and drawing each polygon forming said dummy object in a second lightness different from a first lightness of a corresponding polygon of said object, in accordance with a drawing order of said polygons resulting from sequencing of said polygons from the greatest distance from the view point, set in said setting, and wherein the second lightness is based on the first lightness.
7. (Previously Presented) A computer-readable storage medium storing a program for a video game, which draws an object comprised of a plurality of polygons, wherein said program is structured so as to make a computer perform:
receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, a pixel according to a polygon having a distance closest to the view point, set in said setting, out of polygons projectable into said pixel, wherein when the polygon projected into the pixel is a polygon forming said object, said pixel is drawn according to said polygon and wherein when the polygon projected into the pixel is a polygon forming said dummy object, said pixel is drawn in a second lightness different from a first lightness of the corresponding polygon of said object, and wherein the second lightness is based on the first lightness.

8. (Previously Presented) An object drawing method in a video game, which draws an object in a virtual space, said object drawing method comprising:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

determining a first position of said object and a second position of said dummy object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from a view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the view point and wherein the drawing of said dummy object is in a second lightness different from a first lightness of said object, said second lightness being based on said first lightness.

9. (Previously Presented) The object drawing method in the video game according to Claim 8, wherein the first position of said object and the second position of said

dummy object are determined so that when observed from the view point there is deviation between a straight line connecting a predetermined reference position of said object and the view point and a straight line connecting the view point and a position in said dummy object corresponding to the predetermined reference position of said object.

10. (Previously Presented) The object drawing method in the video game according to Claim 8, wherein in said drawing, said object is drawn at said first position after said dummy object is drawn at said second position.

11. (Previously Presented) An object drawing method in a video game, which draws an object comprised of a plurality of polygons, said object drawing method comprising:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, each polygon forming said object and drawing each polygon forming said dummy object in a second lightness different from a first lightness of a corresponding polygon of said object, in accordance with a drawing order of said polygons resulting from sequencing of said polygons from the greatest distance from the view point, set in said setting, and wherein the second lightness is based on the first lightness.

12. (Previously Presented) An object drawing method in a video game, which draws an object comprised of a plurality of polygons, said object drawing method comprising:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, a pixel according to a polygon having a distance closest to the view point, set in said setting, out of polygons projectable into said pixel, wherein when the polygon projected into the pixel is a polygon forming said object, said pixel is drawn according to said polygon and wherein when the polygon projected into the pixel is a polygon forming said dummy object, said pixel is drawn in a second lightness different from a first lightness of the corresponding polygon of said object, and wherein the second lightness is based on the first lightness.

13. (Previously Presented) A video game apparatus, which comprises

a computer-readable storage medium storing a program for a video game which draws an object in a virtual space; and

a computer which reads out at least one part of said program from said recording medium to perform, by reading out at least one of said program from said storage medium,

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

determining a first position of said object and a second position of said dummy object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from a view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the view point and wherein the drawing

of said dummy object is in a second lightness different from a first lightness of said object, said second lightness being based on said first lightness.

14. (Previously Presented) A video game apparatus, which comprises

a computer-readable storage medium storing a program for a video game which draws an object comprised of a plurality of polygons in a virtual space; and

a computer which reads out at least one part of said program from said recording medium to perform, by reading out at least one of said program from said storage medium,

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, each polygon forming said object and drawing each polygon forming said dummy object in a second lightness different from a first lightness of a corresponding polygon of said object, in accordance with a drawing order of said polygons resulting from sequencing of said polygons from the greatest distance from the view point, set in said setting, and wherein the second lightness is based on the first lightness.

15. (Previously Presented) A video game apparatus, which comprises

a computer-readable storage medium storing a program for a video game which draws an object comprised of a plurality of polygons in a virtual space; and

a computer which reads out at least one part of said program from said recording medium to perform, by reading out at least one of said program from said storage medium,

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, a pixel according to a polygon having a distance closest to the view point, set in said setting, out of polygons projectable into said pixel, wherein when the polygon projected into the pixel is a polygon forming said object, said pixel is drawn according to said polygon and wherein when the polygon projected into the pixel is a polygon forming said dummy object, said pixel is drawn in a second lightness different from a first lightness of the corresponding polygon of said object, and wherein the second lightness is based on the first lightness.

16. (Previously Presented) A video game apparatus which draws an object in a virtual space, said apparatus comprising:

a computer, and

a computer-readable storage medium storing a program to be executed by said computer,

wherein said program is structured so as to make said computer perform:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object ;

determining a first position of said object and a second position of said dummy object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from a view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the view point and wherein the drawing

of said dummy object is in a second lightness different from a first lightness of said object, said second lightness being based on said first lightness.

17. (Previously Presented) A computer program for a video game, which draws an object in a virtual space,

wherein said computer program is structured so as to make a computer perform:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

determining a first position of said object and a second position of said dummy object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from a view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the view point and wherein the drawing of said dummy object is in a second lightness different from a first lightness of said object, said second lightness being based on said first lightness.

18. (Previously Presented) A computer program for a video game, which draws an object comprised of a plurality of polygons,

wherein said computer program is structured so as to make a computer perform:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, each polygon forming said object and drawing each polygon forming said dummy object in a second lightness different from a first lightness of a corresponding polygon of said object, in accordance with a drawing order of said polygons resulting from sequencing of said polygons from the greatest distance from the view point, set in said setting, and wherein the second lightness is based on the first lightness.

19. (Previously Presented) A computer program for a video game, which draws an object comprised of a plurality of polygons,

wherein said computer program is structured so as to make a computer perform:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating a dummy object of said object, the dummy object having an identical shape of said object, by duplicating said object data;

setting a distance from a view point of each polygon forming said dummy object and said object so that said dummy object thus generated is positioned behind said object and overlaps only in part with said object when observed from the view point, the orientation of said dummy object being the same as that of said object; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, a pixel according to a polygon having a distance closest to the view point, set in said setting, out of polygons projectable into said pixel, wherein when the polygon projected into the pixel is a polygon forming said object, said pixel is drawn according to said polygon and wherein when the polygon projected into the pixel is a polygon forming said dummy object, said pixel is drawn in a second lightness different from a first lightness of the corresponding polygon of said object, and wherein the second lightness is based on the first lightness.

20. (Previously Presented) A computer-readable storage medium storing a program for a video game, which generates an object in a virtual three dimensional space, wherein said program is structured so as to make a computer perform:

receiving object data representing an object at a particular instance of a virtual time-space continuum;

generating, based on said object data, an object comprising a plurality of vertexes at a first position in the virtual three dimensional space;

generating, based on said object data, a dummy object of said object by copying the plurality of vertexes for such object, the dummy object having the same shape and orientation as the object;

adjusting the luminance values for the dummy such that the luminance values for the dummy are different than the corresponding luminance values for the object, said luminance values for the dummy based on the corresponding luminance values for the object;

adjusting the position of the dummy object to a second position in the virtual three dimensional space shifted from the first position such that at least a portion of the dummy object does not overlap the object when viewed from a selected viewpoint; and

drawing, in a digital video frame representing said instance of said virtual time-space continuum, said object at said first position and drawing said dummy object at said second position except for an overlapping portion between said object and said dummy object when observed from the selected view point, the dummy object being drawn with the adjusted luminance values, and the drawing of the object and the dummy object at the respective first and second positions adjusted such that the dummy object is positioned behind said object and overlaps only in part with said object when observed from the selected view point.

21. (Previously Presented) The computer-readable storage medium as recited in claim 20 wherein the drawing of the object and the dummy object at the respective first and second positions is adjusted such that the dummy object is positioned behind said object by adding polygons corresponding to the dummy object to a z-sort table after a shift of the first address of the sort table.